

flow field inlets. Liu does not have the structure of the present invention nor can it achieve the purpose, which is to evenly distribute the inlet fuel to all of the fuel cells (application page 3), simultaneously (application page 2). Therefore, reconsideration and allowance of claim 2 and dependent claims 4, 9 and 12 is respectfully requested.

9, 10. Claim 11 is rejected as obvious over Liu as if claim 11 recites larger and smaller openings, which it does not. Claim 11 does not refer to a pressure increase. The Examiner cites a nozzle in which liquid would flow in one end and out the other end. That is irrelevant to the claimed matter since claim 11 only identifies that fuel enters one end of a chamber which becomes smaller toward the other end. Since Liu relies on capillary action to move liquid, there is nothing in Liu to suggest tapering. Furthermore, claim 11 is patentable as depending from claim 2. Therefore, reconsideration and allowance of claim 11 over Liu is respectfully requested.

11. Claim 14 is rejected as obvious over Liu in view of Reiser et al (Reiser).

Reiser is cited as having a recycle loop. However, the conclusion of the rejection is that it would be obvious to replenish the fuel to save the fuel from being expended. That is irrelevant to claim 14 except in the most general sense. Furthermore, the concept that entering recycle fuel into the cells directly would "further mix" and homogenize the fuel is believed to not be true. Certainly, more mixing would occur if the recycle fuel were entered upstream of the baffle, since the neat fuel is upstream also. Homogenizing would more likely occur if the recycle fuel entered upstream of the baffle along with the neat fuel. In any event, there is nothing in either reference to suggest recycle fuel being entered downstream of the baffle. Furthermore, since there are four fuel cells and only two flow fields in Liu, there is not at least one flow field per fuel cell, which claim 14 requires in line 2. Further, there is no fuel inlet manifold that is "in fluid communication with all of the fuel flow field inlets" (claim 14, line 5), since the fuel supply channel 124 in Liu services only one fuel distribution element 120. Therefore, reconsideration and allowance of claim 14 over Liu and Reiser is respectfully requested.

12. Claims 1 and 13 are rejected as obvious over Liu in view of Reiser and LaPierre et al (LaPierre). In claims 1 and 13, line 2 requires that each fuel cell has at least one fuel flow field; in Liu, four fuel cells have only two flow fields 120. The top of page 9 of the Office Action has previously been addressed in paragraph 11. In the second paragraph on page 9 of the Office Action, the last sentence states "it would be obvious...to control the amount of fuel being recycled." Claim 13 has no recycle in it. The configurations in claim 1 and claim 13 require the exhaust valve to be upstream from said fuel inlet manifold; claim 1 additionally requires

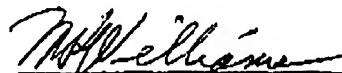
providing recycle fuel into said fuel inlet manifold downstream of the baffle; so the claimed valve is not involved with recycle at all.

The final paragraph in this rejection says it would be obvious because the controller can adjust the valve to control the flow rate of the fuel. However, the structure set forth in claim 1 is not configured to control the flow rate of the fuel. In addition, LaPierre discloses a hydrogen generating fuel processing system having a controller and valves which relate only to fuel processing and not to fuel cells. For a quick check on that, Fig. 3, having the controller 150 and the valves, has pure hydrogen as its output 40 (8:40). The fuel cells 52 in Figs. 1 and 2 do not have fuel recycle of any sort.

Reconsideration and allowance of claims 1 and 13 over the three references is respectfully requested.

To save the Examiner considerable time when this case is taken up, a short phone call is recommended should any issue herein still be unresolved. A few minutes on the phone could clarify a point, or result in a supplemental response which would further limit or dispose of issues. A five minute phone call can save the Examiner a lot of work. Such a phone call would be deeply appreciated.

Respectfully submitted,



M. P. Williams
Attorney of Record
Phone: 860-649-0305
Fax: 860-649-1385
E-mail: mw@melpat.com

210 Main Street
Manchester, CT 06042

Date: May 4, 2009